



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,955	09/04/2003	Qiang Qiu	10191/3334	8919
26646 7590 07/13/2007 KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			EXAMINER LO, SUZANNE	
			ART UNIT 2128	PAPER NUMBER
			MAIL DATE 07/13/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/655,955	<b>Applicant(s)</b> QIU, QIANG	
	<b>Examiner</b> Suzanne Lo	<b>Art Unit</b> 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 5, 7, 8, 10, 13, 14, 17, 18, 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-5, 7-8, 10, 13-14, 17-18, 20-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1, 4-5, 7-8, 10, 13-14, 17-18, and 20-21 have been presented for examination.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claims 1,4-5, 10, 14, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baque et al. (U.S. Patent No. 6,246,933 B1) in view of Woll et al. (U.S. Patent No. 5,581,464).

As per claim 1, Baque is directed to a method for *analyzing* driving data of *at least two vehicles involved in a collision*, comprising: calculating a three-dimensional, kinematic model (**column 10, lines 48-52 and column 14, lines 54-61**) of *at least two vehicles* (**column 15, lines 13-22**), the model including at least one linear-motion-dynamics signal (**column 9, line 64- column 10, line 3**) and at least one lateral-motion-dynamics signal (**column 10, line 59 – column 11, line 14**) and wherein a time basis for the at least one linear-motion-dynamics signal and at he at least one lateral-motion-dynamics signal is provided by a real-time clock and recorded and wherein the time basis is common to the at least two vehicles (**column 15, lines 24-26**), and visually representing the three-dimensional, kinematic model of the at least two vehicles involved in the collision (**column 14, line 54 – column 15, line 22**) but fails to explicitly

Art Unit: 2128

*disclose a radar signal of an adaptive cruise control system of each of the at least two vehicles wherein the at least one lateral-motion-dynamics signal includes a rotational-rate signal of a yaw sensor and wherein the radar signal of the adaptive cruise control system and the time basis provided by the real-time clock are utilized to determine relative positions of the at least two vehicles.*

Baque teaches a radar signal of an adaptive cruise control system of each of the at least two vehicles (**column 3, lines 45-59**) wherein the at least one lateral-motion-dynamics signal includes a rotational-rate signal of a yaw sensor (**column 4, lines 10-18**) and wherein the radar signal of the adaptive cruise control system (**column 3, lines 40- 59**) and the time basis provided by the real-time clock (**column 4, lines 57-64**) are utilized to determine relative positions of the at least two vehicles (**column 3, line 60 – column 4, line 7**).

Baque and Woll are analogous art because they are both from the same field of endeavor. It would have been obvious to an ordinary person skilled in the art at the time of the invention to combine the method of acquiring driving data of Baque with the radar signal and yaw sensor of Woll as Woll is incorporated into the teachings of Baque (**Baque, column 4, line 60- column 5, line 15**) to make accident reconstruction more reliable and less expensive (**Baque, column 11, lines 59-62**).

**As per claim 4**, the combination of Baque and Woll already discloses the method as recited in claim 1, wherein: the at least one linear-motion-dynamics signal includes at least one of speed signals of all wheels, vehicular-speed signals, longitudinal-acceleration signals, and a GPS signal (**Baque, column 9, line 64- column 10, line 3**).

**As per claim 5**, the combination of Baque and Woll already discloses the method as recited in claim 1, wherein: the at least one lateral-motion-dynamics signal *further* includes at least one of lateral-acceleration signals and steering-angle signals (**Baque, column 10, line 59 – column 11, line 14**).

Art Unit: 2128

As per claim 6, Baque is directed to the method as recited in claim 1, but fails to specifically disclose further comprising: utilizing a radar signal. Woll teaches utilizing a radar signal (**column 3, lines 46-59**).

As per claim 10, the combination of Baque and Woll is directed to a *system for analyzing vehicle data of at least two vehicles involved in a collision*, comprising components to perform the method steps of claim 1 and are therefore rejected over the same art combination.

As per claims 14 and 17-18, the combination of Baque and Woll is directed to a computer program *stored on a computer-readable medium* having a program-code that when executed on one of a computer and a processing unit results in a performance of the method steps of claim 1 and 4-5 and is therefore rejected over the same art combination.

3. **Claims 7 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Baque et al. (U.S. Patent No. 6,246,933 B1) in view of Woll et al. (U.S. Patent No. 5,581,464) **in further view of Hathout et al. (U.S. Patent No. 6,675,074 B2)**.

As per claim 7, the combination of Baque and Woll is directed to the method as recited in claim 1, but fails to specifically disclose *wherein a rotational-rate signal of an ESP system is utilized as the rotational-rate signal of the yaw sensor*. Hathout teaches utilizing a rotation-rate signal of an ESP system (**column 3, lines 1-9**). Baque, Woll and Hathout are analogous art because they are from the same field of endeavor, recording driving data. It would have been obvious to an ordinary person skilled in the art at the time of the invention to combine the method of acquiring driving data of Baque and Woll with the rotational-rate signal of Hathout in order to better calculate positions in real time (**Hathout, column 3, lines 1-9**) more reliably and less costly (**Baque, column 11, lines 59-62**).

As per claim 20, the combination of Baque, Woll, and Hathout is directed to a computer program having a program-code that when executed on one of a computer and a processing unit results in a performance of the method steps of claim 7 and is therefore rejected over the same art combination.

4. **Claims 8, 13, and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Baque et al. (U.S. Patent No. 6,246,933 B1) in view of Woll et al. (U.S. Patent No. 5,581,464) **in further view of Rayner (U.S. Patent No. 6,718,239 B2).**

As per claim 8, the combination of Baque and Woll is directed to the method as recited in claim 1, but fails to specifically disclose further comprising: outputting a message based on the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal in response to a predeterminable event. Rayner teaches outputting a message based on linear and lateral dynamics signals (column 5, line 63 – column 6, line 2). Baque, Woll, and Rayner are analogous art because they are from the same field of endeavor, recording driving data. It would have been obvious to an ordinary person skilled in the art at the time of the invention to combine the method of acquiring driving data of Baque and Woll with the output message of Rayner in order to provide feedback to an operator (**Rayner, column 5, line 63 – column 6, line 2**).

As per claim 13, the combination of Baque, Woll, and Rayner is directed to a device for acquiring vehicle data, comprising components to perform the method steps of claim 8 and is therefore rejected over the same art combination.

As per claim 21, the combination of Baque, Woll, and Rayner is directed to a computer program having a program-code that when executed on one of a computer and a processing unit results in a performance of the method steps of claim 8 and is therefore rejected over the same art combination.

***Response to Arguments***

5. The 35 U.S.C. 101 rejections of claims 1-9 and 14-22 are withdrawn due to the amended claims.

6. The 35 U.S.C. 112, 2<sup>nd</sup> paragraph rejection of claims 9, 12, and 22 are withdrawn due to the cancellation of said claims.

7. Applicant's arguments with respect to the 102(b) and 103(a) art rejections have been considered but are moot in view of the new grounds of rejection.

8. In response to Applicant's argument in Section IX, pages 10-11, the 35 U.S.C. 103(a) rejection of claims 1, 10, and 14 over the combination of Baque and Woll as stated above does teach calculating a three-dimensional, kinematic model (**Baque, column 10, lines 48-52 and column 14, lines 54-61**) *of at least two vehicles* (**Baque, column 15, lines 13-22**), the model including at least one linear-motion-dynamics signal (**Baque, column 9, line 64- column 10, line 3**) and at least one lateral-motion-dynamics signal (**Baque, column 10, line 59 – column 11, line 14**) *and wherein a time basis for the at least one linear-motion-dynamics signal and at he at least one lateral-motion-dynamics signal is provided by a real-time clock and recorded and wherein the time basis is common to the at least two vehicles* (**Baque, column 15, lines 24-26**), *and visually representing the three-dimensional, kinematic model of the at least two vehicles involved in the collision* (**Baque, column 14, line 54 – column 15, line 22**) wherein a radar signal of an adaptive cruise control system of each of the at least two vehicles (**Woll, column 3, lines 45-59**) wherein the at least one lateral-motion-dynamics signal includes a rotational-rate signal of a yaw sensor (**Woll, column 4, lines 10-18**) and wherein the radar signal of the adaptive cruise control system (**Woll, column 3, lines 40- 59**) and the time basis provided by the real-time clock (**Woll, column 4, lines 57-64**) are utilized to determine relative positions of the at least two vehicles (**Woll, column 3, line 60 – column 4, line 7**).

**Conclusion**

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record is not relied upon because it is cumulative to the applied rejection.

These references include:

1. U.S. Patent No. 6,748,305 B1 issued to Klauser et al. on 06/08/04.
2. U.S. Patent No. 5,826,206 issued to Nemeth on 10/20/98.
3. U.S. Patent No. 6,535,804 B1 issued to Chun on 03/18/03.

10. All Claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Suzanne Lo whose telephone number is (571)272-5876. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571)272-2297. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

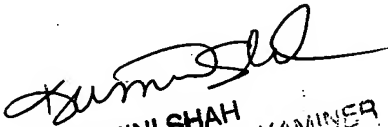


Art Unit: 2128

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Suzanne Lo  
Patent Examiner  
Art Unit 2128

SL  
07/06/07

  
KAMINI SHAH  
SUPERVISORY PATENT EXAMINER